Advanced Powertrain Research Facility

Downloadable Dynamometer Database (D[3])- Test Summary Sheet

2010 Hyundai LPI Hybrid

Vehicle Architecture	Alternative Fuel Hybrid
Document Date	11/27/2012
Revision Number	1
Notes:	

Vehicle Setup Information

Test Cell Location	APRF- 4WD
Vehicle Dynamometer Input	
Test weight [lb]	3125
Target A [lb]	20.15
Target B [lb/mph]	0.2061
Target C [lb/mph^2]	0.014
Test Fuel Information	
Fuel type	Butane (C4H10)
Fuel density [g/ml]	0.579
Fuel Net HV [BTU/lbm]	19651

Test ID [#]	Cycle	Cold start (CSt) Hot start [HSt]	Date	Test Cell Temp [C]	Test Cell RH [%]	Test Cell Baro [in/Hg]	Vehicle cooling fan speed: Speed Match [SM] or constant speed [CS]	Solar Lamps [W/m2]	Veicle Climate Control settings	Hood Position [Up] or [Closed]	Window Position [Closed] or [Down]	Cycle Distance [mi]	Cycle Fuel economy [mpg] (Modal)	Cycle HV battery Integrated net current [DC Ah]	Cycle HV battery Average Zero crossing Voltage [V]	Cycle HV battery Net Energy [DC Wh]	Cycle HV battery Net Energy Consumption [DC Wh/mi]
Test information				Test cell information			Test cell setup		Vehicle setup					Electric energy consumption			
Test sequence purpose: Standard testing																	
61102031	UDDS CS	CSt	02/09/2011,	22.18	43.23	29.67	Cst spd	Off	Off	Up	Down	7.46	40.0	0.039	173.402	-9.269	-2.726
61102032	UDDS HS	HSt	02/09/2011,	22.39	41.54	29.66	Cst spd	Off	Off	Up	Down	7.45	42.1	-0.118	173.277	-35.060	-9.769
61102033	Highway	HSt	02/09/2011,	22.39	43.19	29.66	Cst spd	Off	Off	Up	Down	10.26	55.9	-0.080	182.785	-18.840	-1.837
61102034	US06	HSt	02/09/2011,	22.39	39.29	29.65	Cst spd	Off	Off	Up	Down	8.02	35.3	-0.029	181.169	-20.312	-2.534
61102044	Steady State Speed	HSt	02/10/2011,				Cst spd	Off	Off	Up	Down						
Full charge test summary											**Totals**						

Re-charging information

N/A Ambient temperature during charge

Level:

HV battery integrated current [DC Ah] **N/A**

Charger integrated current [AC Ah] **N/A**

HV battery integrated power [DC Wh] **N/A**

Charger integrated power [AC Wh] **N/A**

Summary notes

For the highway and US06 cycles only the second (hot) test results are presented in this summary.

Electric energy consumption:

HV battery Integrated net current --> Integrated current as reported by power analyzer

HV battery Average Zero crossing Voltage --> Calculated Average Zero crossing Voltage over the phase or cycle

HV Net Energy --> Integrated power as reported by power analyzer

Note that HV Net Energy is not equal to the product of HV battery Integrated net current times Average Zero crossing Voltage.

* Vehicle coast down information referenced from collaborative partner on project- Korea Automotive Technology Institute (KaTech)

Advanced Powertrain Research Facility Data referencing:

- This data has originated from the Argonne National Laboratory D[3] website. http://webapps.anl.gov/vehicle_data/
- The purpose of this information is to provide advanced technology vehicle chassis dynamometer test data for the engineering community. Mostly comprised of vehicle benchmarking test results, it is intended for the better understanding of the technology and for education. Data from this website may not used as a source for publication or profit without consent of Argonne National Laboratory.
- Please contact d3info@anl.gov for questions, comments or inquiries.